

RT-PCR Products from Mouse and Human Breast Tumor Cells

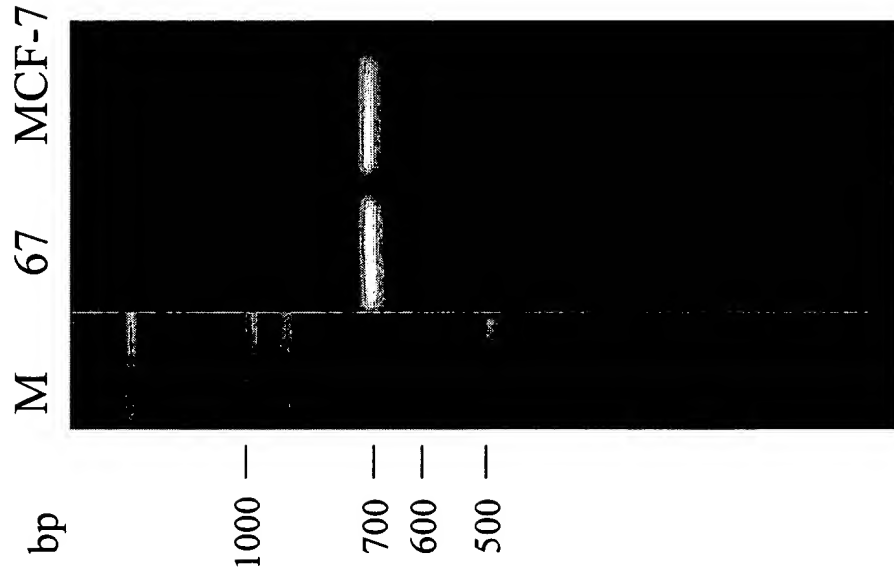


FIG. 1

**Human Sigma-1 β Receptor
mRNA Sequence (cd Region)
GenBank: AF226604**

FIG. 2

Comparison of The Human Sigma-1 and Sigma-1 β Receptor Protein Sequences

1	MQWAVGRRWAWAALLLAVAAVLTQVVWLWLGTQSFVFQREEIAQLARQYA	50
1	MQWAVGRRWAWAALLLAVAAVLTQVVWLWLGTQSFVFQREEIAQLARQYA	50
51	GLDHELAFSRLIVELRRLHPGHVLPDEELQWVFNAGGWMGAMCLLHASL	100
51	GLDHELAFSRLIVELRRLHPGHVLPDEELQWVFNAGGWMGAMCLLHASL	100
101	SEYVLLFGTALGSRGHSGRYWAEISDTIISGTFHQWREGTTKSEVFYPGE	150
101	SEYVLLFGTALGSRGHS (117) [31 AA were deleted] GE	119
151	TVVHGPGEATAVEWGPNTWMVEYGRGVIPSTLAFALADTVFSTQDFLTLE	200
120	TVVHGPGEATAVEWGPNTWMVEYGRGVIPSTLAFALADTVFSTQDFLTLE	169
201	YTLRSYARGRLRLTTLTYLFGQDP	223 AA human σ_1 receptor protein
170	YTLRSYARGRLRLTTLTYLFGQDP	192 AA human $\sigma_{1\beta}$ receptor protein

FIG. 3

Mouse Sigma-1 β Receptor mRNA Sequence (cd Region)

GeneBank: AF226605

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1  ATGCCGTGGCGCGGACGGCGGTGGCATGGATACCCCTGATTCTGACTATTATCGCA 60
   M P W A A G R R W A W I T L I L T I I A
61  GTGCTGATCCAGGCGCCTGGTTGTGGCTGGGCACTCAAAACTTCGTCTCTAGAGAA 120
   V L I Q A A A W L W L G T Q N F V F S R E
121  GAAATAGCGCAGCTTGCTCGACAGTATCGGGGCTGGACCATGAGCTTGCCCTCTCGG 180
   E I A Q L A R Q Y A G L D H E L A F S R
181  CTGATCGTGGAGCTGCGGAGGCTGCACCCAGCCACGTGCTCCGGATGAGGAGTGCAG 240
   L I V E L R R L H P G H V L P D E E L Q
241  TGGGTATTTGTGAACGGCGGGGCTGGATGGGCGCCATGTGTATTCTGCACGCCCTCGCTG 300
   W V F V N A G G W M G A M C I L H A S L
301  TCTGAGTACGTGCTCTTCGGCACCGCCCTGGGCTCCCATGGCCATTCGGGAGAGACA 360
   S E Y V L L F G T A L G S H G H S G E T
361  GTTGTAACGGGCGCTGGAGAAGCAACGGCTCTGGAGTGGGACCAACACGTGGATGGTG 420
   V V H G P G E A T A L E W G P N T W M V
421  GAGTACGGCGGGGTGTTATTCGGTCTACCCCTGTTCTTTGCACCTAGCCGACACCTTCTTC 480
   E Y G R G V I P S T L F F A L A D T F F
481  GGCACCCAGGACTACCTCACACTCTTCTATACCTTCGGGCCTATGCCGGGCGCTCCGG 540
   G T Q D Y L T L F Y T L R A Y A R G L R
541  CTTGAGCTTACCACCTACCTCTTTGGCCAAGACTCCTGA 579
   L E L T T Y L F G Q D S *

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FIG. 4

Comparison of The Mouse Sigma-1 and Sigma-1 β Receptor Protein Sequences

1	MPWAAGRRWAWITLILTIIAVLIQAAWLWLGTONFVFSRREEIAQLARQYA	50
1	MPWAAGRRWAWITLILTIIAVLIQAAWLWLGTONFVFSRREEIAQLARQYA	50
51	GLDHELAFSRLIIVELRRLHPGHVLPDEELQWVFVNAGGWMGAMCILLHASL	100
51	GLDHELAFSRLIIVELRRLHPGHVLPDEELQWVFVNAGGWMGAMCILLHASL	100
101	SEYVLLFGTALGSHGSHGRYWAEISDTIISGTFHQWKEGTTKSEVFYPGE	150
101	<u>SEYVLLFGTALGSHGHS</u> (117) [31 AA were deleted] GE	119
151	TVVHGPGEATALEWGNPTWMVEYGRGVIPSTLFFALADTFFGTQDYLLTF	200
120	TVVHGPGEATALEWGNPTWMVEYGRGVIPSTLFFALADTFFGTQDYLLTF	169
201	YTLRAYARGRLRLLELTLYLFGQDS* 223 AA	σ_1 receptor protein
170	YTLRAYARGRLRLLELTLYLFGQDS* 192 AA	$\sigma_{1\beta}$ receptor protein

FIG. 5

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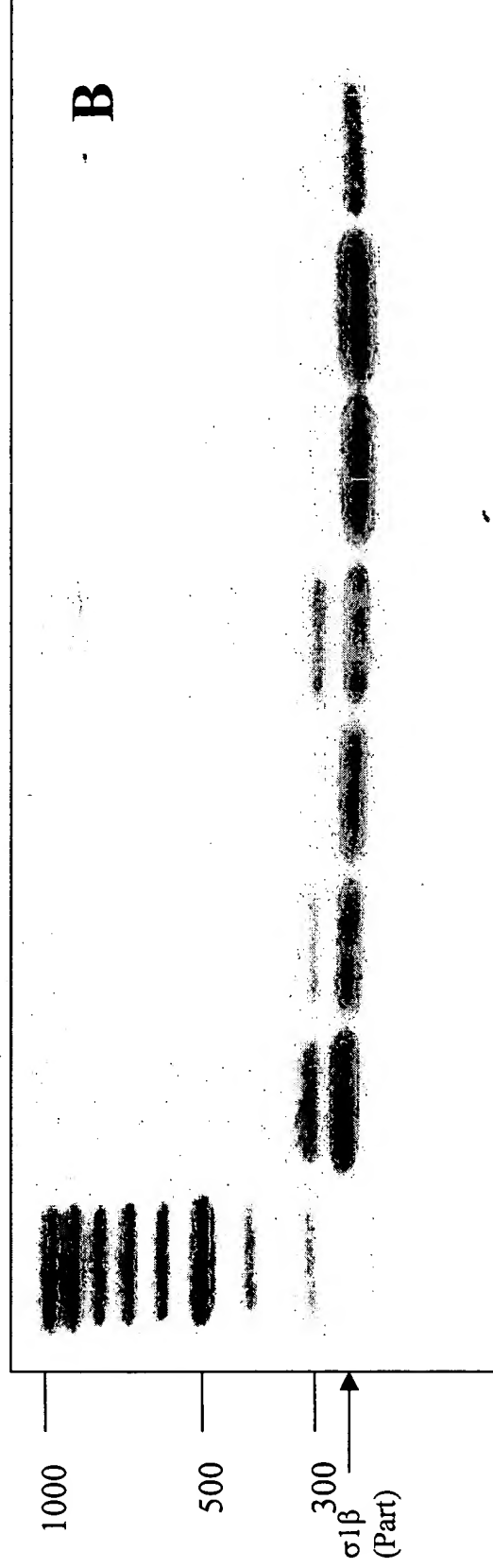
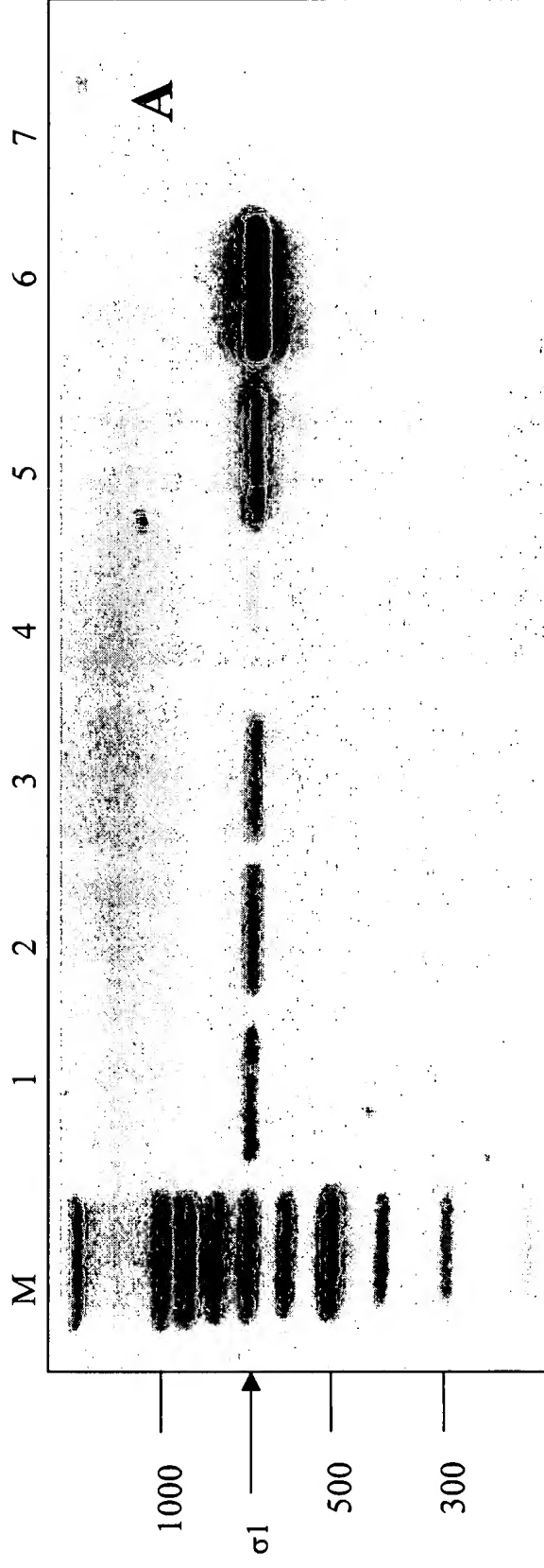


FIG. 6

Sigma-1 Receptor Gene



Sigma-1 Receptor mRNA

Human Sigma-1 β Receptor mRNA

Mouse Sigma-1 β Receptor mRNA

FIG. 7